dacor
The Life of the Kitchen.®

Installation Instructions

Downdraft Raised Vent

Models: ERV36-ER, ERV48-ER

Use these downdraft raised vents only with approved Dacor® appliances. See the installation instructions for the particular appliance model being installed to determine suitability.

Part No. 103106 Rev. H

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Before You Begin...

Important:

- **Installer:** In the interest of safety and to minimize problems, read these installation instructions completely and carefully before you begin the installation process. Leave these installation instructions with the customer.
- **Customer:** Keep these installation instructions for future reference and the local electrical inspector's use.

Customer Service Information

If You Need Help...

If you have questions or problems with installation, contact your Dacor dealer or the Dacor Customer Service Team. For repairs to Dacor appliances under warranty call the Dacor Distinctive Service line. Whenever you call, have the model and serial number of the appliance ready. The model and serial number are printed on the product data label on the front of the unit.

Dacor Customer Service

Phone: (800) 793-0093 (U.S.A. and Canada)
Monday - Friday 6:00 A.M. to 5:00 P.M. Pacific Time

Web site: www.Dacor.com

Dacor Distinctive Service (repairs under warranty only)

Phone: (877) 337-3226 (U.S.A. and Canada)
Monday — Friday 6:00 A.M to 4:00 P.M. Pacific Time

The product data label also specifies the power supply requirements.

Model Identification:

ERV36-ER = 36-inch wide raised vent

ERV48-ER = 48-inch wide raised vent

Tested in accordance with the latest edition of ANSI Z 21.1 standard for household gas cooking appliances, ANSI/UL 858 household electrical ranges, CAN/CSA-C22.2 NO. 64 Standard for Household Electric Cooking and Liquid Heating Appliances, and UL 507 electric fans.

All specifications subject to change without notice. Dacor assumes no liability for changes to specifications.

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Important Safety Instructions

Important Information About Safety Instructions

- The ***Important Safety Instructions*** and warnings in these instructions are not meant to cover all possible problems and conditions that can occur. Use common sense and caution when installing, maintaining or operating this or any other appliance.
- Always contact the Dacor Customer Service Team about problems and conditions that you don't understand. See ***Customer Service Information*** on the facing page.

Safety Symbols and Labels

⚠ DANGER

Immediate hazards that **WILL** result in severe personal injury or death.

⚠ WARNING

Hazards or unsafe practices that **COULD** result in severe personal injury or death.

⚠ CAUTION

Hazards or unsafe practices that **COULD** result in minor personal injury or property damage.

⚠ DANGER

IMPORTANT: Do not store or use combustible, flammable or explosive vapors and liquids (such as gasoline) inside or in the vicinity of this or any other appliance. Also keep items that could explode, such as aerosol cans, away from the range. Do not store flammable or explosive materials in adjacent cabinets or areas.

⚠ WARNING

WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

a) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.

b) Sufficient air is needed for proper combustion and exhausting of gases through the flue(chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.

c) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

d) Ducted fans must always be vented to the outdoors."

READ AND SAVE THESE INSTRUCTIONS

Important Safety Instructions

General Safety Precautions

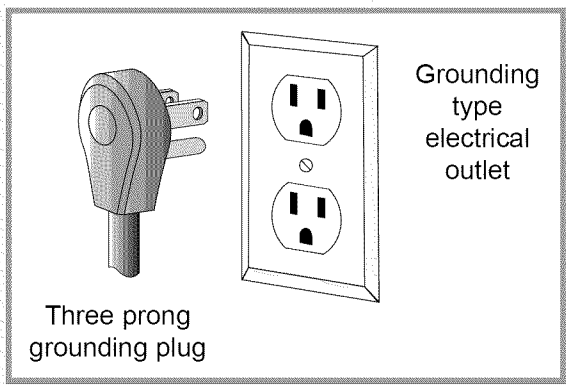
To reduce the risk of fire, electric shock, serious injury or death when using your appliance, follow basic safety precautions, including the following:

⚠ WARNING

- Do not install or operate a damaged appliance. If you receive a damaged appliance, contact your dealer or builder.
- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- Use this raised vent only for its intended purpose as outlined in the use and care manual. This appliance is not intended for commercial use.
- The customer should not install, repair or replace any part of this unit unless specifically recommended in the literature accompanying it. A qualified service technician should perform all other service. Contact the Dacor Customer Service Team for examination, repair or adjustment.
- Keep all packaging materials away from children. Plastic bags can cause suffocation.
- For proper operation, this unit must be installed with a remote or in-line blower. Use only one of the models specified. Only one blower shall be installed.
- Install or locate this appliance only in accordance with these installation instructions the Dacor range installation instructions and the remote or in-line blower installation instructions. Improper installation, adjustment, alteration, service or maintenance can cause serious personal injury or property damage.
- Before installing or servicing the raised vent, disconnect the power plug from the electrical outlet.
- The installer must show the customer the location of the electrical outlet so that the customer knows where and how to disconnect power.
- Read the use and care manual completely before operating this appliance.
- Do not tamper with the controls.
- Never allow the filters or vent openings to become blocked or clogged. Do not allow foreign objects, such as cigarettes or napkins, to be sucked into the vent holes.
- Clean the filters and all grease-laden surfaces often to prevent grease fires and maintain performance. Clean this appliance only as specified in the use and care manual.

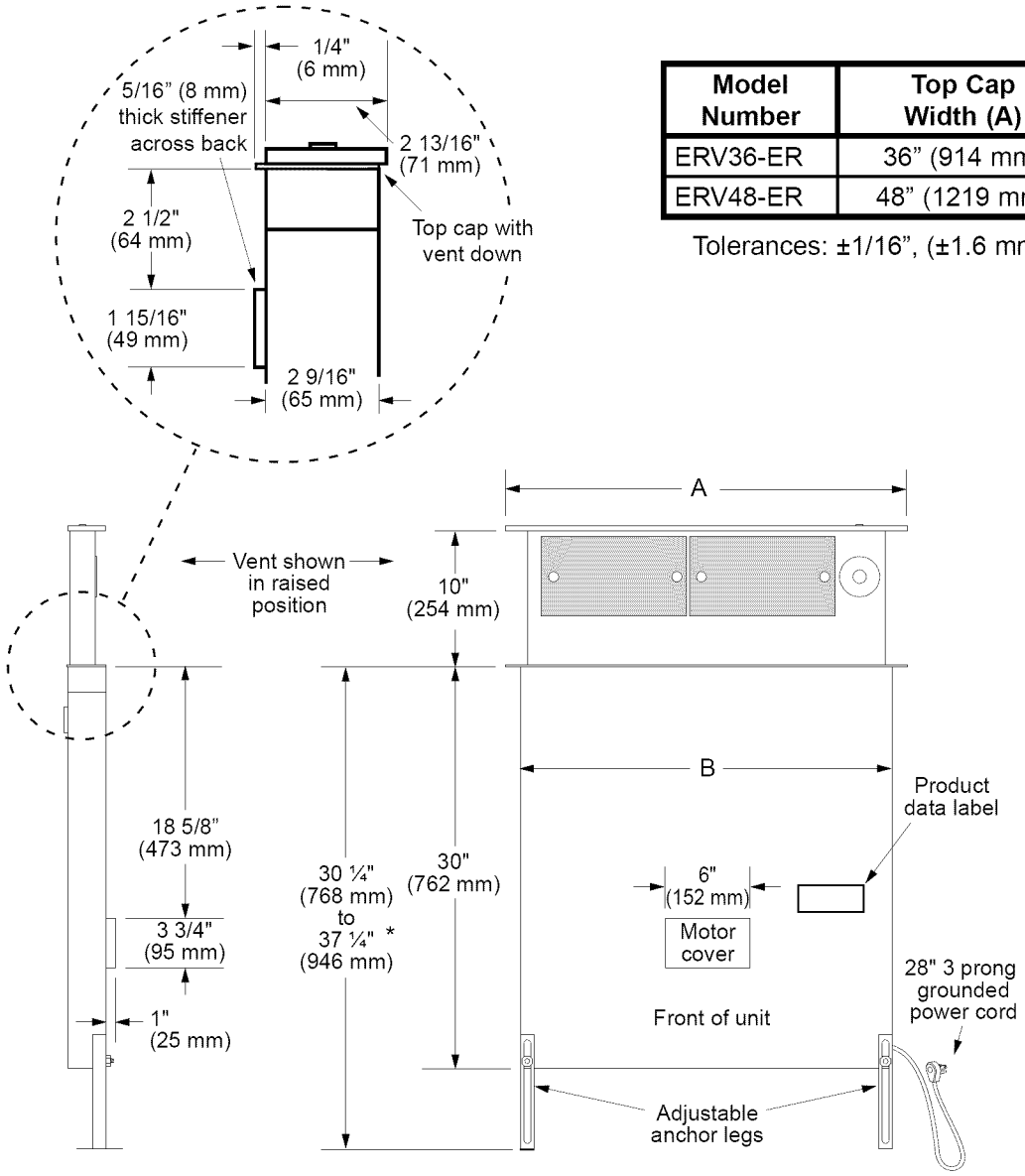
⚠ WARNING

- Do not leave children or pets alone or unattended in the area around the range when it is in use. Never allow children to sit or stand on an appliance. Do not let children play with a range or the raised vent. Do not store items of interest to children above or around the range.
- This appliance is equipped with a three prong grounding plug for your protection against possible electric shock hazards. It must be plugged into a dedicated, grounded electrical outlet. Where a standard two-prong electrical outlet is encountered, it is the personal responsibility and obligation of the customer to have it replaced with a dedicated, properly grounded three prong electrical outlet. **Do not under any circumstances:**
  - ♦ Cut or remove the third (ground) prong from the power cord.
  - ♦ Use an adapter plug.
  - ♦ Use an extension cord.
  - ♦ Use a power cord that is frayed or damaged.
  - ♦ Use of a ground fault interrupter (GFI) is not recommended.



Product Specifications

Product Dimensions



Model Number	Top Cap Width (A)	Chassis Width (B)
ERV36-ER	36" (914 mm)	33 3/8" (848 mm)
ERV48-ER	48" (1219 mm)	43 3/8" (1102 mm)

Tolerances: ±1/16", (±1.6 mm) unless otherwise stated

See page 6 for exhaust locations and dimensions

* Maximum height of raised vent must not exceed maximum specified counter height for cooking appliance. See installation instructions for cooking appliance.

Installation Specifications

⚠ WARNING

- Observe all governing codes and ordinances during planning and installation. Contact your local building department for further information.
- The electric outlet for the raised vent should be installed only by a licensed electrician.

Electrical Specifications

The raised vent is supplied with a 28" (711 mm) power cord terminated by a three-prong plug. Plug it directly into a dedicated, grounded, three prong, electrical outlet. Do not use an extension cord.

The correct voltage, frequency and amperage must be supplied to the electrical outlet from a grounded, single phase circuit that is protected by a properly sized circuit breaker or time-delay fuse.

Electrical Supply Requirements

- A three-prong electrical outlet connected to a 120 Vac, 60 Hz, 15 Amp. grounded, dedicated circuit is required.
- The customer must supply wiring/conduit with minimum current carrying capacity of 8 Amps. to supply power to the remote or in-line blower from the raised vent. See ***General System Layout*** and ***Planning the Duct Work*** for further details.

- The above specifications are for reference only. If the power supply requirements shown above do not agree with those listed on the product data label, use the required voltage, frequency and amperage ratings on the label.
- It is the owner's responsibility to ensure that electrical outlet is installed by a licensed electrician. The electrical installation must comply with the latest revision of the National Electric Code ANSI/NFPA 70* (latest revision) and local codes and ordinances.

  *A copy of this standard may be obtained from:

  National Fire Protection Association
  1 Batterymarch Park
  Quincy, Massachusetts 02269-9101
- Locate the electrical outlet in an accessible location, so that the power plug can be disconnected for service without removing the raised vent or the range from the cabinet.

Planning the Installation

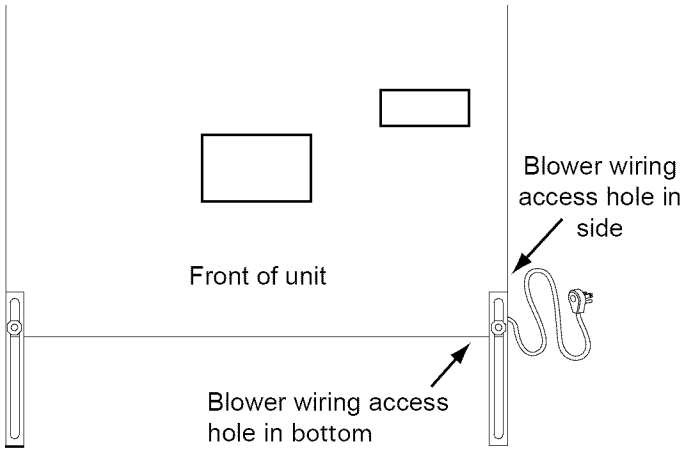
General System Layout

The vent system consists of the raised vent itself and a single Dacor approved remote or in-line blower (see page 6).

⚠ WARNING

- Failure to install an approved remote or in-line blower or proper duct work will result in a back draft and/or the insufficient venting of smoke and fumes.
- To reduce the risk of personal injury caused by reaching over a hot appliance, cabinet storage space located directly above the range should be avoided.
- Do not store combustible materials or items adversely affected by heat in cabinet areas above the appliance.
- Follow the instructions and diagrams for minimum safe clearances and installation location in these instructions, the appliance installation instructions and the remote or in-line blower installation instructions. Failure to do so may result in a fire or safety hazard.

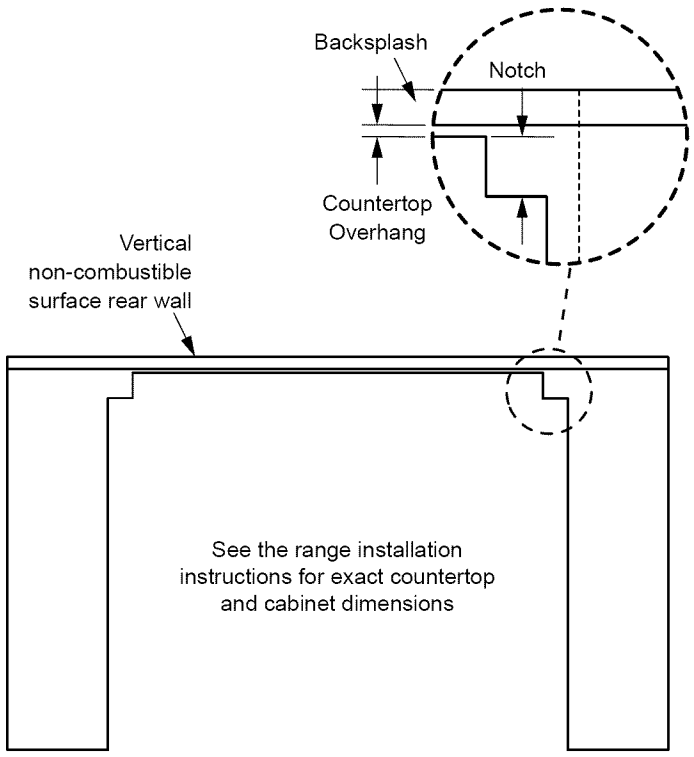
- Wire the remote or in-line blower to turn on when the raised vent is turned on by running wiring/conduit parallel to the duct work and connecting it to the raised vent on one end and the blower on the other. There are 7/8" access holes in the bottom and side of the raised vent for connecting the conduit/strain relief.



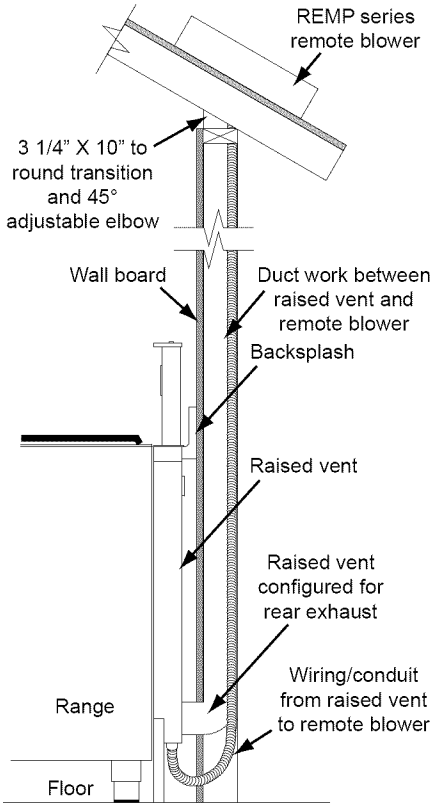
Electrical Access Hole Locations for Blower Connection

Installation Specifications

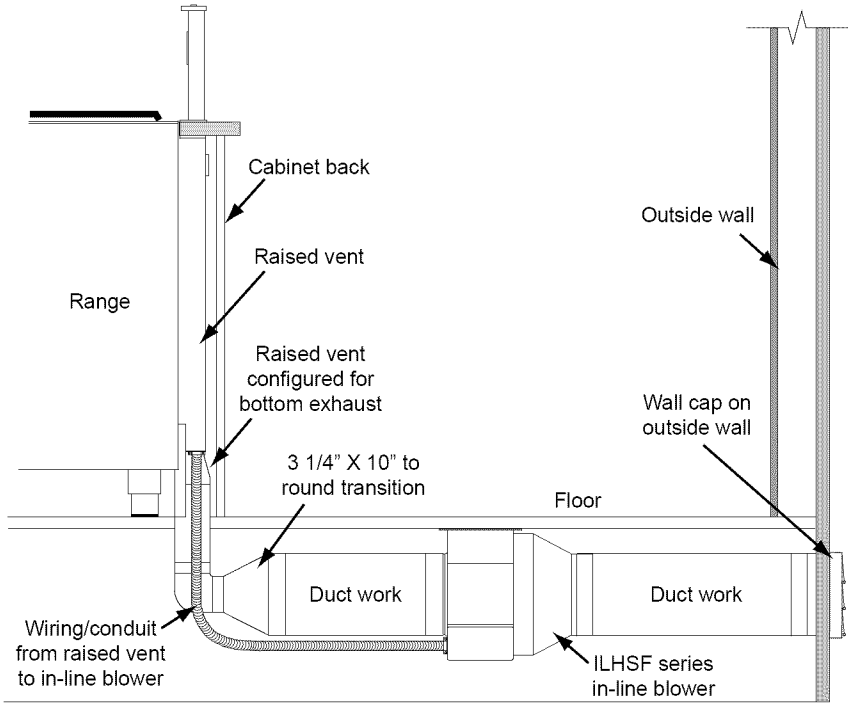
- The raised vent exhaust may be configured to vent through the back, the bottom or through one of the sides. The maximum allowable duct run must be taken into consideration when determining the layout. See ***Planning the Duct Work*** for further details.
- Refer to the range installation instructions for the minimum cutout dimensions specific to the particular range and ERV model being installed.
- Install the raised vent and range so that they can be removed if service is required.
- The raised vent is equipped with adjustable anchor legs to accommodate various cabinet heights.
- Plan the installation so that all minimum dimensions are met or exceeded. All contact surfaces between the raised vent and any cabinets or walls must be solid and at right angles.
- Allow room for the exhaust duct coming out of the unit. See ***Planning the Duct Work*** for further details.



All tolerances: +1/16", -0, (1.6 mm,0) unless otherwise stated



Example of Layout with Rear Exhaust



Example of Layout with Bottom Exhaust

Installation Specifications

Planning the Duct Work

⚠ WARNING

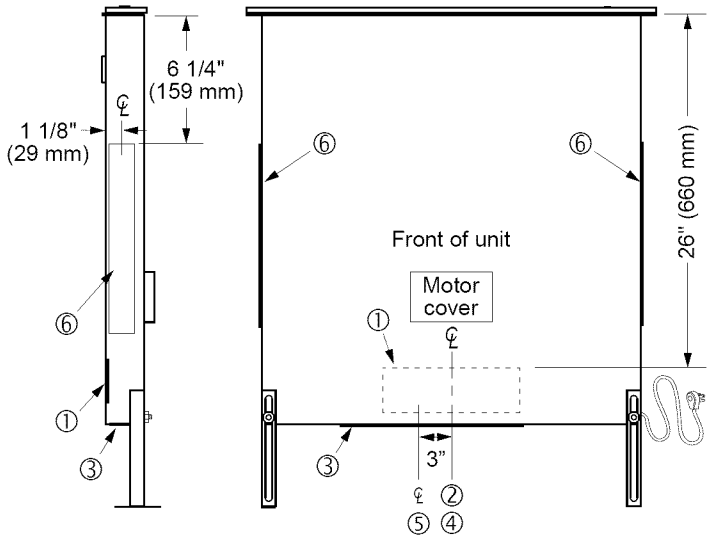
- To reduce the risk of fire and to properly exhaust air, be sure to duct air outside the house or building. Do not vent exhaust air into spaces within walls or ceilings or into attics, crawl spaces or garages.
- Tape all duct joints securely to prevent combustion by-products, smoke or odors from entering the home. Doing so will also improve system efficiency.
- TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCT WORK.
- **DO NOT** install more than one blower to increase the length of the duct run. Even small differences between blower air flow rates can greatly reduce the air draw by the raised vent.

You must install one of the Dacor remote or in-line blower models listed below for the raised vent to operate properly. See the blower installation instructions for directions. Only one blower shall be installed.

APPROVED DACOR BLOWERS FOR USE WITH MODEL ERV36-ER AND ERV48-ER RAISED VENTS				
Model Number	REMP3	REMP16	ILHSF8	ILHSF10
Rating*	600 CFM	1000 CFM	600 CFM	1100 CFM

* Nominal rating at zero inches static pressure. See blower installation instructions for actual ratings.

The ERV raised vent can be configured to exhaust through the back, the bottom or either side by removing the appropriate exhaust knock out shown below.



① Rear Exhaust Knock Out (3 1/4" X 10")

② Vertical center line of rear exhaust knock out lines up with vertical center line of chassis

③ Bottom Exhaust Knock Out (1 5/8" X 16")

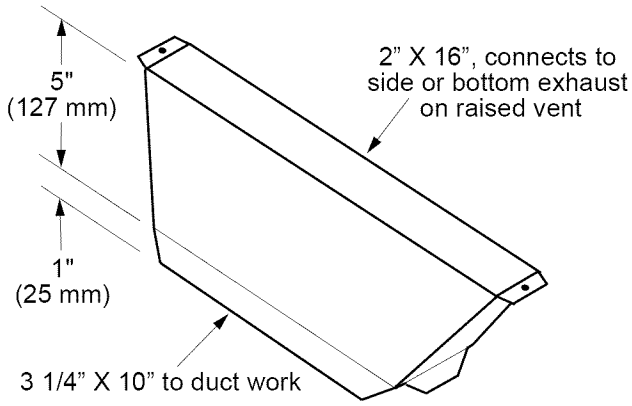
④ On 46" and 48" wide models, the vertical center line of bottom knock out lines up with vertical center line of chassis

⑤ On 30" and 36" wide models, the vertical center line of bottom knock out is offset 3"

⑥ Side Exhaust Knock Outs (1 5/8" X 16")

- When connecting the duct work to the back of the unit, the customer must supply a 3 ¼" X 10" rectangular transition to make the connection.
- For side and bottom exhaust connections, use the supplied ATD2 transition to connect the duct work to the unit. It transitions between the 1 5/8" X 16" exhaust outlet on the unit and a 3 ¼" X 10" rectangular duct connection. On bottom exhaust installations cut a hole in the floor to allow the transition and/or duct work to pass through the floor (see page 8).

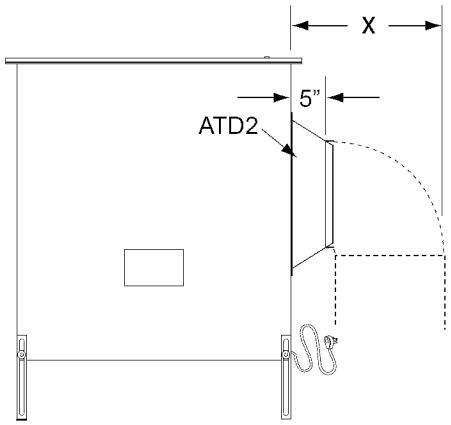
ADT2 Transition



- All duct work materials (including screws and duct tape) must be purchased separately by the customer.
- When planning new duct work, always look for the shortest, most direct route to the outside. See page 5 for examples.
- You can increase the duct size over the duct run if desired. To prevent a back draft, never decrease the duct size over the run.
- Do not rely on duct tape alone to seal duct joints. Fasten all connections with sheet metal screws and tape all joints with certified silver tape or duct tape.
- Use sheet metal screws as required to support the duct weight.
- To prevent back-drafts, a damper at the duct outlet may also be required.

Installation Specifications

- On side exhaust installations, allow five inches of space on the side for the ADT2 exhaust transition plus additional space for the duct attached to it (X).
- Make sure duct work does not interfere with floor joists or wall studs.
- With concrete slab construction, “box-in” the duct work and blower wiring to prevent collapsing or other damage when the wet concrete is poured.
- Cross-drafts or air currents from adjacent open windows or doors, heating/air conditioning outlets, ceiling fans and recessed ceiling lights reduce vent efficiency.



Duct Work Design Tips

- Wherever possible, reduce the number of transitions and turns to as few sharp angles as possible. Two staggered 45° angles are better than one 90°. Keep turns as far away from the hood exhaust as possible, with as much space between each bend as possible.
- For best performance, use round duct instead of rectangular when possible, especially when elbows are required.
- If multiple elbows are used, try to keep a minimum of 24” of straight duct between them. Avoid “S” or “back to back” configurations of adjacent elbows.
- Do not use flexible metal duct.

Calculating the Maximum Duct Run Length

- Do not use duct work that is smaller in cross-sectional area than the required duct sizes in the table to the right.
- For best performance, keep the duct run as short as possible and never exceed the maximums stated at the right.
- The maximum straight duct length for the raised vent system depends on the model of remote or in-line blower used with the vent system and the number of elbows and transitions used. The ***Equivalent Number of Feet*** for each elbow and transition (see table) must be subtracted from the maximum straight length to compensate for wind resistance. To determine the maximum allowable length of the duct work, subtract all of the equivalent lengths of the elbows and transitions listed at the right from the ***Blower Maximum Duct Straight Length***.

For example, for a raised vent system using 3 1/4” X 10” rectangular duct, two (2) 3 1/4” X 10” 90° elbows, a 3 1/4” X 10” rectangular to 10” round transition, and a REMP16 remote blower:

- From the ***Blower Maximum Duct Straight Length*** table, the maximum length without transitions and elbows is 60 feet.
- The equivalent length of each 90° elbow is 15 feet.
- The equivalent length of 45° elbow is 2 feet.
- The equivalent length of the transition is 4 feet.
- The total equivalent length of the above components is: 15 feet + 15 feet + 4 feet + 2 feet = 36 feet.
- The maximum amount of straight duct that can be used with a REMP16 and the above components is: 60 feet - 34 feet = 24 feet.

Equivalent Number of Feet - Duct Elbows and Transitions			
45° elbow 8 Inch	3 feet	3 ¼” X 10 45° elbow	7 feet
45° elbow 10 Inch	2 feet	3 ¼” X 10 90° elbow	15 feet
90° elbow 8 Inch	7 feet	3 ¼” X 10 90° flat elbow	20 feet
90° elbow 10 Inch”	5 feet	3 ¼” X 10 to 8” round transition	4 feet
90° 3 ¼” X 10 to 8” round transition	25 feet	3 ¼” X 10 to 10” round transition	4 feet
Roof cap	*	Wall cap	*

* The equivalent lengths of roof and wall caps vary with model and configuration. For equivalent length, contact the manufacturer or a qualified HVAC specialist.

Duct Size Used	Blower Maximum Duct Straight Length			
	REMP3 Remote Blower	REMP16 Remote Blower	ILHSF8 In-line Blower	ILHSF10 In-line Blower
8 Inch	50 feet (15.2 meters)	60 feet (18.3 meters)	50 feet (15.2 meters)	60 feet (18.3 meters)
10 Inch	40 feet (12.2 meters)	70 feet (21.3 meters)	40 feet (12.2 meters)	70 feet (21.3 meters)
3 ¼” X 10”	40 feet (12.2 meters)	60 feet (18.3 meters)	40 feet (12.2 meters)	60 feet (18.3 meters)

Installation Instructions

Installation Preparation

Verify Package Contents

- Product literature
- Anchoring legs
- 2 wood screws, #14 x 2 1/2 (PN 83047)
- 3 wire nuts
- ADT2 duct transition
- 2 sheet metal screws, #10 x 1/2 (PN 83022)
- 2 keps nuts, 1/4-20 (PN 83049)
- 2 flat washers, 1/4-20 (PN 83203)
- Insulation foam

Installation

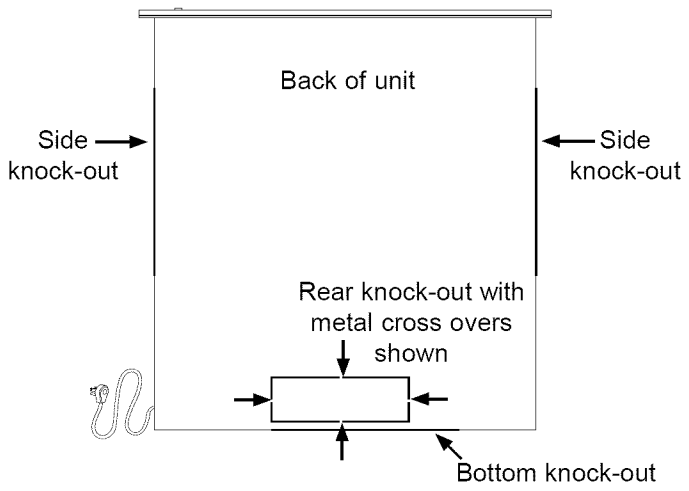
⚠ WARNING

- If the electrical service (electrical outlet) does not meet the ***Electrical Specifications*** on page 4, do not proceed with the installation. Call a licensed electrician and have an electrical outlet installed that meets the specifications.
- Install the vent only in a vertical orientation. Do not mount the vent on a slant or angle.
- Do not enlarge or modify the exhaust knock outs or cut an exhaust hole in a location on the chassis other than those shown. Doing so may cause an increase in noise and decrease performance.

NOTE: The ERV series raised vent installs in the back of the cutout, separate from the range. Install the raised vent before pushing the range into place.

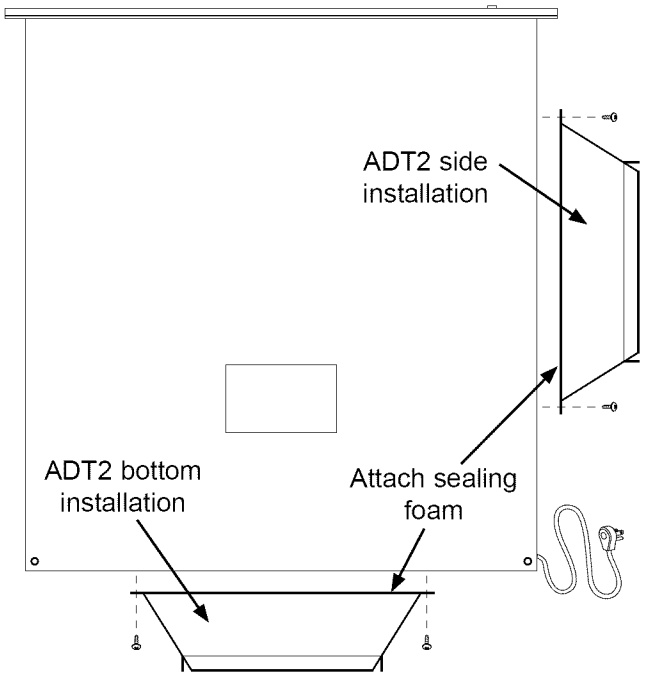
Installing the Raised Vent

1. Remove the appropriate side, back or bottom exhaust knockout, depending on the desired exhaust configuration, from the raised vent chassis by cutting the metal cross overs and removing the insert.



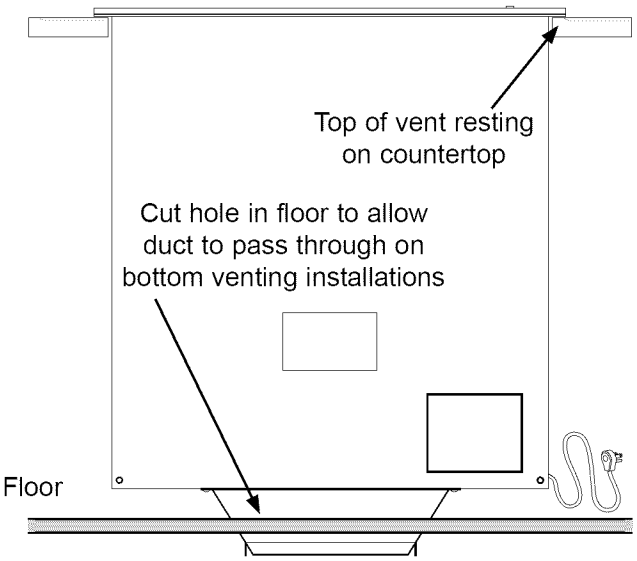
Vent Knock-out Locations - Rear View

2. Cut and remove the foil material inside the knock-out hole. If you fail to remove the foil, the vent will not work.
3. If the unit will vent through the bottom or side:
   - Attach the supplied ATD2 transition to exhaust location with the provided sheet metal screws.



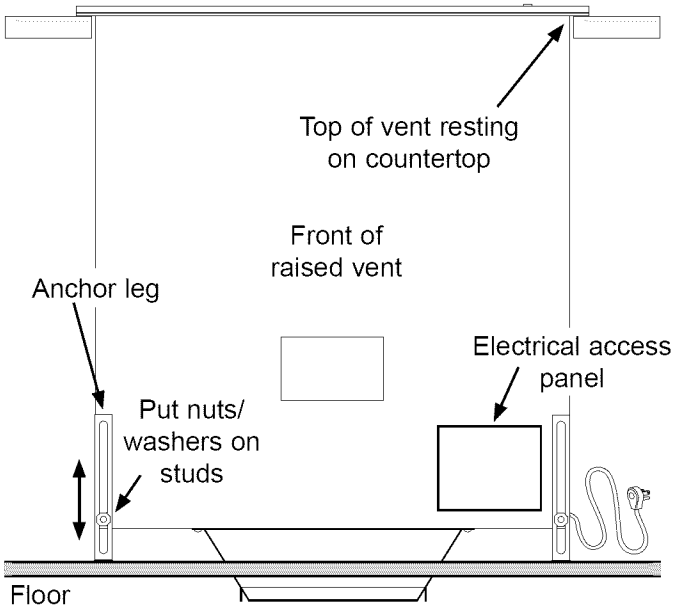
ADT2 Transition Installation

   - For bottom installations cut a hole in the cabinet floor to allow the exhaust transition and/or the duct to pass through the floor.



4. If the unit will exhaust air from the back, attach a 3 1/4" X 10 duct to the vent hole created by removing the knock-out on the back of the unit.

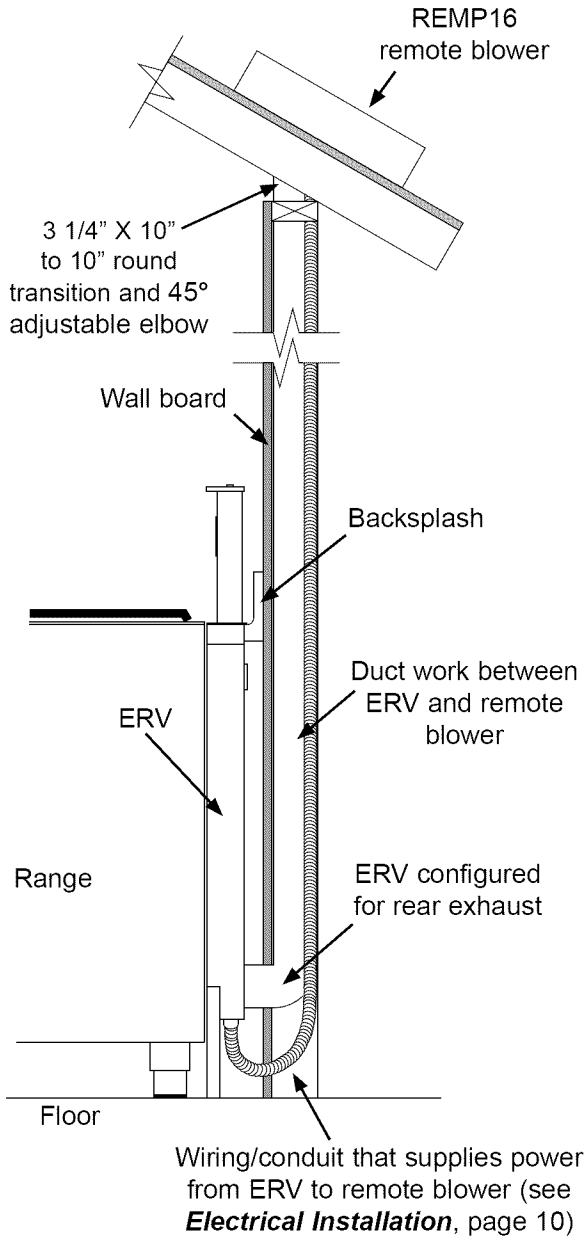
5. Gently slide the vent into the rear of the countertop cut-out with the electrical access panel toward the front.



6. Loosely attach the anchoring legs to the studs on the left and right sides of the raised vent using the provided keps nuts and washers.
7. Adjust the anchoring leg height so that the end caps are gently resting on the counter, then tighten the hex nuts.
8. Secure the anchoring legs to the cabinet floor with the provided wood screws.

Installing the Blower and Ducts

1. Install the remote or in-line blower according to the blower installation instructions.
2. Install the duct work according to the ***Installation Specifications***. Use sheet metal screws and duct tape to connect and seal all of the pieces. Support the duct weight as necessary to ensure sealed joints.


REMP16 remote blower
3 1/4" X 10" to 10" round transition and 45° adjustable elbow
Wall board
Backsplash
Duct work between ERV and remote blower
ERV
Range
ERV configured for rear exhaust
Floor
Wiring/conduit that supplies power from ERV to remote blower (see ***Electrical Installation***, page 10)

Example of Installation with Rear Exhaust (Side View)

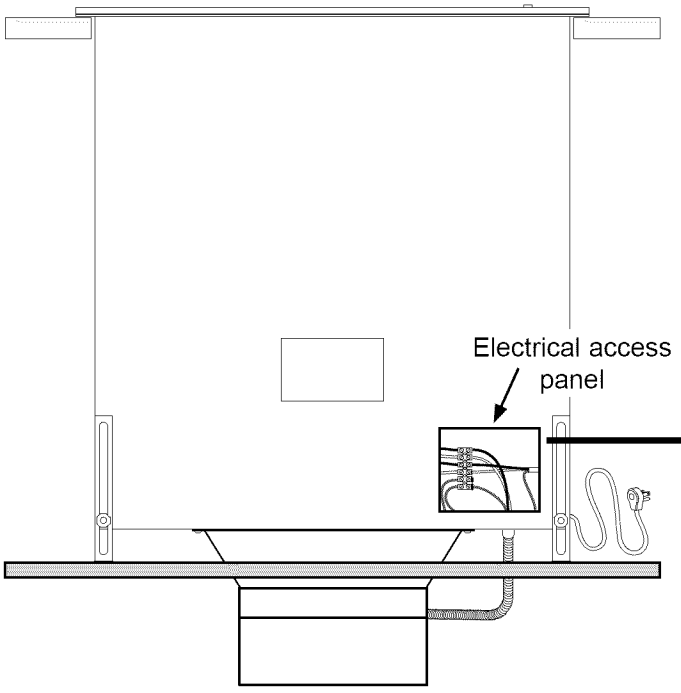
Installation Instructions

Electrical Installation

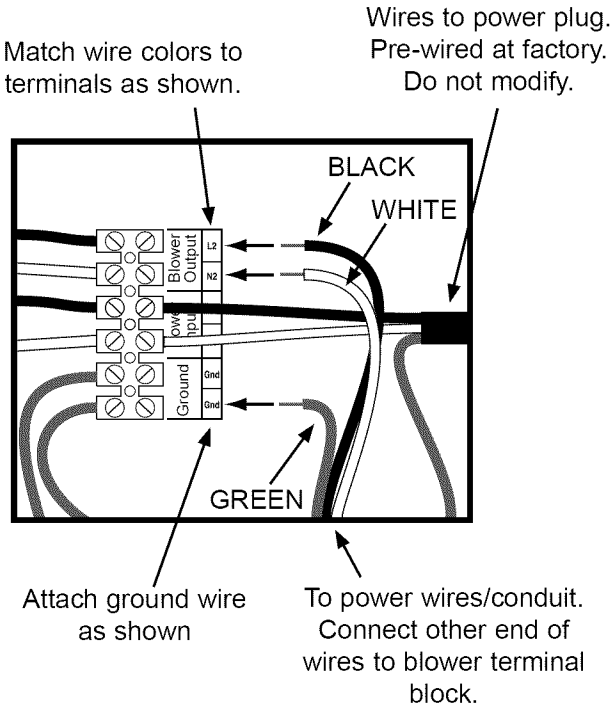
⚠ WARNING

- **ELECTRIC SHOCK HAZARD** - Do not connect the raised vent power plug to the electrical outlet until installation is complete.
- Failure to complete electrical connections properly may result in an electric shock hazard or a damaged or non-functional system. Follow the wiring diagrams carefully to ensure a proper installation. Do not change the factory wired terminal connections inside the electrical access panel for the raised vent or the blower.
- To avoid an electric shock hazard and to prevent damage route all wiring away from hot surfaces.

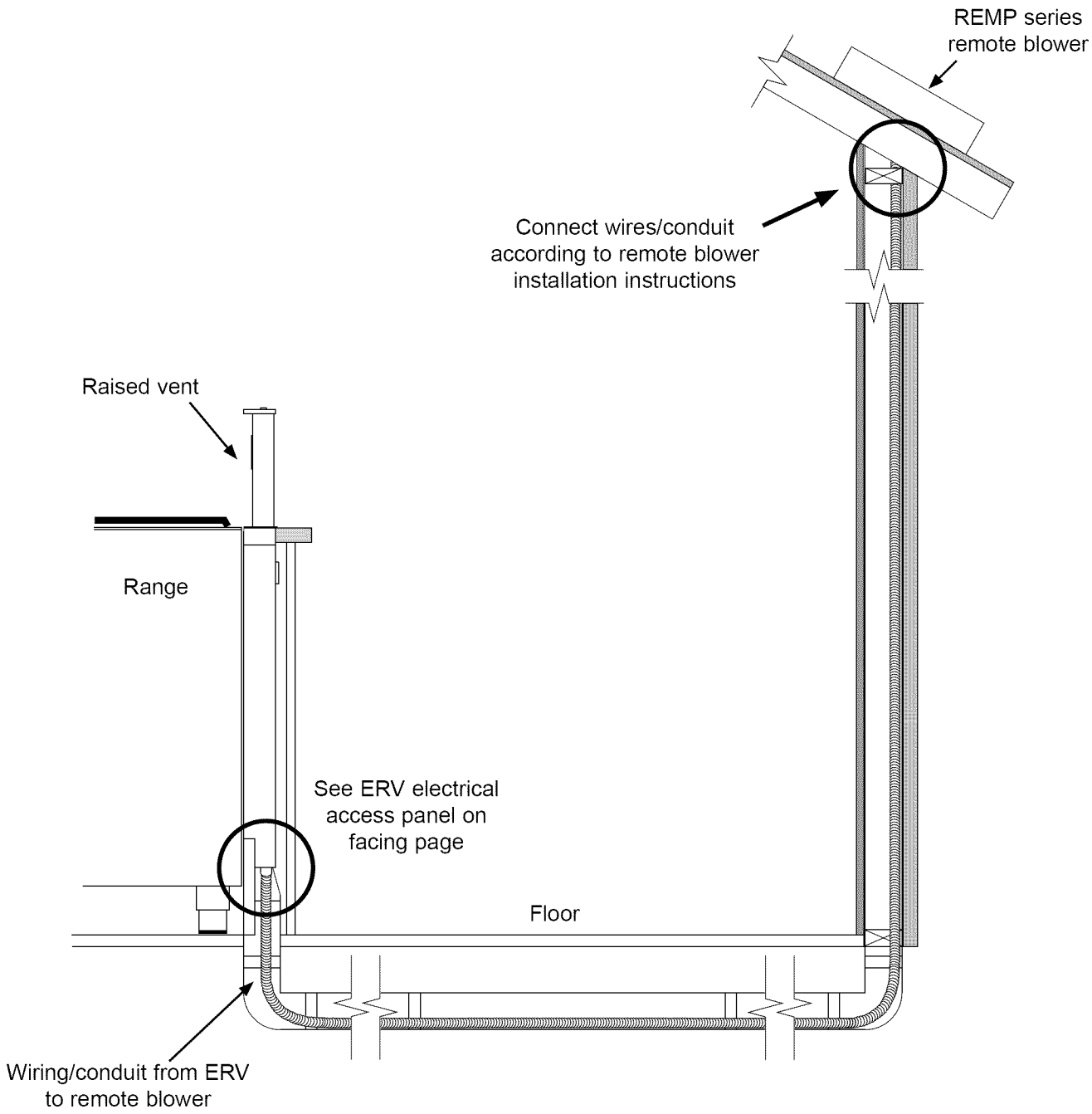
1. Run the wiring/conduit line used to supply power from the raised vent to the blower parallel to the duct work.
2. Make sure the raised vent power plug is disconnected from the electrical outlet.
3. Remove the cover from the raised vent electrical access panel.
4. Connect the wiring/conduit to the blower according to the wiring diagrams on this page, the facing page and local codes and ordinances. Make sure all terminal connections, including the factory wired connections, are tight.
5. Replace the electrical access panel.



ERV Raised Vent Front View



ERV Electrical Access Panel



Example of Installation with Bottom Exhaust (Side View)

Range Installation

Install the range according to the range installation instructions.

Verifying Proper Operation

⚠ WARNING

- Read the raised vent use and care manual completely before operation.
- Install all of the front filters prior to operating the raised vent. Refer to the use and care manual for filter installation instructions.

⚠ CAUTION

To prevent damage to the raised vent power cord, route it away from the surfaces of the range before connecting it.

1. Make sure the power switch on the top of the raised vent is in the up position.
2. Plug the raised vent power plug into the electrical outlet.
3. Press the power switch once to raise the vent to its operating position.
4. Once in the up position the vent should begin to draw air. Turn the variable speed control switch in both directions to verify that the system is operating correctly.
5. Press the top cap up/down switch once to lower the vent.
6. Make sure that the top cap on the raised vent intake does not catch on the back edge of the cooktop or range when the intake is lowered. If interference occurs, adjust the position of the cooktop or range. Failure to eliminate any interference may result in permanent damage to the vent.

If the raised vent is not operational after installation:

- Make sure that power is being supplied to the raised vent.
- Make sure that power is being supplied to the blower from the raised vent.
- See the ***Before You Call for Service*** section of the use and care manual.
- If the vent will not raise properly or makes a scraping sound check for obstructions interfering with the raising of the unit.

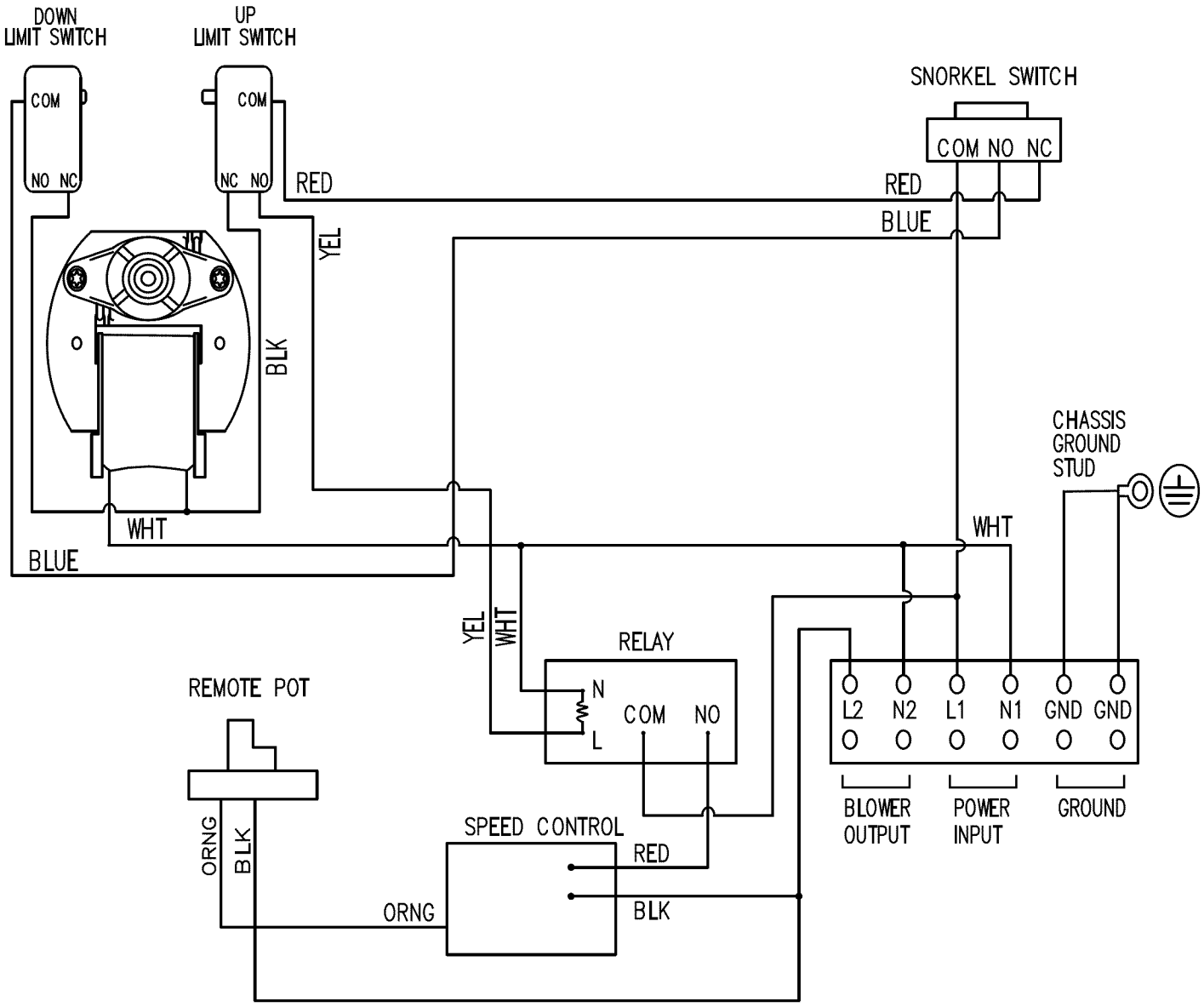
If the raised vent still does not function proper installation and after performing the above checks, do not attempt to repair it. Contact Dacor Distinctive Service at (877) 337-3226. Be sure to have the model and serial numbers available when you call. See the label on the front of the raised vent.

Dacor is not responsible for the cost of correcting problems resulting from a faulty installation.

Installation Checklist

- ☐ Are the anchor legs extended down to make contact with the floor and tightened into place? Are the anchor legs fastened to the floor? Is the unit level?
- ☐ Is the duct work completely installed? Are all joints attached with sheet metal screws and wrapped with duct tape?
- ☐ Are both ends of the remote or in-line blower power cable connected (to the raised vent and to the blower itself?)
- ☐ Are the vent filters installed according to these instructions?
- ☐ Is the power cord routed away from the hot surfaces of the range.
- ☐ Is the unit connected to an electrical outlet that meets the electrical specifications in these instructions?
- ☐ Has proper operation been verified?
- ☐ Has the warranty been activated on-line or the warranty card been filled out completely and mailed?

Wiring Diagram



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